

CLAIMS

I claim:

1. A selectively openable lid for a drinking vessel, comprising:

5 a circular base member having mounting means thereon for removably connecting the base member to a drinking vessel, the base member further having a downwardly depending base member side wall defining a depressed floor region having upper and lower surfaces and drinking and
10 venting apertures, wherein an inwardly directed surface of the side wall has a plurality of opposed bayonet ears thereon;

a circular cap member for rotational engagement with the base member, the cap member having a downwardly
15 depending cap member side wall defining a depressed drinking basin having upper and lower surfaces and drinking and venting apertures positioned and sized so as to correspond to the drinking and venting apertures in the base member, wherein an outwardly directed surface of the
20 cap member side wall has a plurality of opposed bayonet ears thereon positioned and sized for corresponding engagement with the bayonet ears on the base member;

first seal means between the cap and base members for forming a fluid conduit between the corresponding drinking
25 and venting apertures when said apertures are in respective rotational registration with one another, so that interstitial areas between the cap and base members are fluidly isolated from the apertures and remain substantially uncontaminated by drinking fluid from the
30 drinking vessel when the cap member is in a first, closed position; and,

second seal means between the cap and base members for forming a fluid barrier between the corresponding
35 drinking and venting apertures when the cap member is in a second, open position and said apertures are out of respective rotational registration with one another, so

0 that the interstitial areas between the cap and base
members are fluidly isolated from the base member
apertures and remain substantially uncontaminated by
drinking fluid from the drinking vessel when the cap
member is in the second, open position.

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2. The selectively openable lid of Claim 1,
including timing means for limiting relative rotation of
the cap and base members from the first, closed position
through the second, open position and to a third
10 disengaged position wherein the corresponding bayonet ears
on the cap and base members are disengaged so that the
members can be separated and cleaned.

3. The selectively openable lid of Claim 2, wherein
15 the timing means includes angularly spaced apart, upwardly
directed, delimiting stop projections on the base member
and a arcuately shaped, downwardly directed timing cam
projection on the cap member positioned for angular
movement between the stop projections.

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4. The selectively openable lid of Claim 3, wherein
the timing cam subtends an angle of approximately 22.5
degrees and wherein the delimiting stops are angularly
separated by an angle of approximately 145 degrees.

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5. The selectively openable lid of Claim 2, wherein
the timing means includes a detent structure between the
stop projections to discourage inadvertent relative
rotation of the cap and base members from the second, open
30 position to the third, disengaged position.

6. The selectively openable lid of Claim 5, wherein
the detent structure is a ramp member having reduced
resistance to relative clockwise rotation of the cap and
base members from the third, disengaged position to the
35 second, open position as compared to relative counter

0 clockwise rotation of the cap and base members from the
second, open position to the third, disengaged position.

7. The selectively openable lid of Claim 1, wherein
the bayonet ears on the cap member are diametrically
5 opposed and subtend an angle of approximately 60 degrees,
wherein the bayonet ears on the base member also are
diametrically opposed, and wherein a first one of the base
member bayonet ears subtends an angle of approximately 60
degrees and a second one of the base member bayonet ears
10 subtends an angle of approximately 30 degrees.

8. The selectively openable lid of Claim 7, wherein
leading edges of the base member bayonet ears are
diametrically aligned.

15 9. The selectively openable lid of Claim 1, wherein
the cap member has a centrally disposed, cylindrical
spindle depending downwardly from the lower surface of the
drinking basin, and wherein the base member has a
20 centrally located arbor for receipt of the cylindrical
spindle for guiding relative rotation of the cap and base
members.

10. The selectively openable lid of Claim 1, wherein
25 the first and second seal means include arcuately shaped
ovoid gaskets in the upper surface of the base member
floor and wherein the lower surface of the drinking
receptacle is substantially smooth and adapted for sliding
sealing engagement with the gaskets, except that the lower
30 surface of the drinking receptacle has a rebate adjacent
to the venting aperture for gradual release of pressure in
the drinking vessel.

11. A selectively openable lid for a drinking
35 vessel, comprising:

0 a base member having a floor region defining upper and lower surfaces and drinking and venting apertures, and having a plurality of opposed base member bayonet ears thereon;

5 a circular cap member for rotational engagement with the base member, the cap member defining a depressed drinking basin having upper and lower surfaces and drinking and venting apertures positioned and sized so as to correspond to the drinking and venting apertures on the base member, and a plurality of opposed cap member bayonet
10 ears positioned thereon and sized for corresponding engagement with the base member bayonet ears;

seal means between the cap and base members for forming a fluid conduit between the corresponding drinking and venting apertures when said apertures are in
15 respective rotational registration with one another and for forming a fluid barrier between the corresponding drinking and venting apertures when said apertures are out of respective rotational registration with one another, so that interstitial areas between the cap and base members
20 are fluidly isolated from the base member apertures and remain substantially uncontaminated by drinking fluid from the drinking vessel when the cap member is in a first, closed and second, open position.

25 12. The selectively openable lid of Claim 11, including timing means for limiting relative rotation of the cap and base members from the first, closed position through the second, open position and to a third, disengaged position wherein the corresponding bayonet ears
30 on the cap and base members are disengaged so that the members can be separated and cleaned.

13. The selectively openable lid of Claim 12, wherein the timing means includes angularly spaced apart,
35 upwardly directed, delimiting stop projections on the base member and an arcuately shaped downwardly directed timing

0 cam projection on the cap member positioned for angular movement between the stop projections.

14. The selectively openable lid of Claim 13, wherein the timing cam subtends an angle of approximately
5 22.5 degrees and wherein the delimiting stops are angularly separated by an angle of approximately 145 degrees.

15. The selectively openable lid of Claim 12,
10 wherein the timing means includes a detent structure between the stop projections to discourage inadvertent relative rotation of the cap and base members from the second closed position to the third disengaged position.

16. The selectively openable lid of Claim 15,
15 wherein the detent structure is a ramp member having reduced resistance to relative clockwise rotation of the cap and base members from the third, disengaged position to the second, open position as compared to relative
20 counter clockwise rotation of the cap and base members from the second, open position to the third, disengaged position.

17. The selectively openable lid of Claim 11,
25 wherein the bayonet ears on the cap member are diametrically opposed and subtend an angle of approximately 60 degrees, wherein the bayonet ears on the base member also are diametrically opposed, and wherein a first one of the base member bayonet ears subtends an
30 angle of approximately 60 degrees and a second one of the base member bayonet ears subtends an angle of approximately 30 degrees.

18. The selectively openable lid of Claim 17,
35 wherein leading edges of the base member bayonet ears are diametrically aligned.

0 19. The selectively openable lid of Claim 11,
wherein the cap member has a centrally disposed,
cylindrical spindle depending downwardly from the lower
surface of the drinking basin, and wherein the base member
has a centrally located arbor for receipt of the
5 cylindrical spindle for guiding relative rotation of the
cap and base members.

 20. The selectively openable lid of Claim 11,
wherein the base member is circular and has means thereon
10 for releasably mounting the base member to a drinking
vessel.

 21. The selectively openable lid of Claim 20,
wherein the mounting means has a downwardly depending side
15 wall having an external thread for engagement with
external threads on the drinking vessel and wherein the
base member further has an "O" ring seal adjacent the
threads and positioned for sealing engagement with the
drinking vessel.

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